

**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of

Petition for Extension of Video Game
Software Class Waiver of Commission's
Rules for Access to Advanced
Communications Services (ACS) and
Equipment by People with Disabilities

CG Docket No. 10-213

**REPLY COMMENTS OF THE
ENTERTAINMENT SOFTWARE ASSOCIATION**

The joint comments of the Consumer Groups¹ in this proceeding make clear that, in several respects, the video game industry and advocacy groups representing the deaf and hard of hearing community share a similar perspective. First, the video game industry has made “sincere and significant efforts ... to improve the accessibility of gaming equipment and software.”² Second, these efforts have been informed, in part, by outreach to the deaf and hard of hearing community.³ Finally, while the video game industry has made some important accessibility advancements, additional progress will enable gamers who are deaf or hard of hearing to more fully participate in the gaming experience.⁴

¹ See generally Comments of Telecommunications for the Deaf and Hard of Hearing, Inc. (TDI), the National Association of the Deaf (NAD), the Hearing Loss Association of America (HLAA), the Association of Late-Deafened Adults (ALDA), the Cerebral Palsy and Deaf Organization (CPADO), the California Coalition of Agencies Serving the Deaf and Hard of Hearing (CCASDHH), the National Association of State Agencies of the Deaf and Hard of Hearing (NASADHH), the Deaf and Hard of Hearing Consumer Advocacy Network (DHHCAN), and the Rehabilitation Engineering Research Center on Technology for the Deaf and Hard of Hearing, Gallaudet University (DHH-RERC) (“Consumer Groups”), CG Docket No. 10-213 (filed Nov. 30, 2016)(“Consumer Groups Comments”).

² Consumer Groups Comments at 1.

³ See *id.*

⁴ See *id.* (citing TDI, *Thanks to The Paciello Group, TDI Meets with Entertainment Software Association and Sony Interactive Entertainment* (Oct. 5, 2016), <https://tdiforaccess.org/2016/10/gaming-esa-sony/>).

The Entertainment Software Association (“ESA”) likewise appreciates the Consumer Groups’ acknowledgment that there are circumstances under which they would be “inclined to support” ESA’s Petition for Waiver Extension.⁵ However, ESA respectfully disagrees with the assertion that its Petition is deficient under the waiver standards set by Congress and the Commission.⁶ ESA’s Petition—as written—satisfies the requirements in the Twenty-First Century Communications and Video Accessibility Act (“CVAA”) and the Commission’s rules, and the Consumer and Governmental Affairs Bureau (“Bureau”) should promptly grant the waiver. That said, ESA is pleased to provide additional information about the industry’s compliance plans and outreach commitments, hoping that this will address the Consumer Groups’ concerns and assist the Bureau in making its waiver determination.

1. The Petition Satisfies the ACS Waiver Standards.

Video game software continues to be eligible for a waiver because game software shares “common defining characteristics” and “is capable of accessing ACS but is nonetheless designed primarily for purposes other than the use of ACS.”⁷ Moreover, as set forth in ESA’s Petition, granting a 12-month waiver extension would serve the public interest by:

- (1) providing an environment in which ESA member companies can continue to innovate and experiment with accessibility solutions tailored to video games by reducing regulatory uncertainty;
- (2) allowing publishers to bring games currently under development that include ACS components to market to compete with games that do not include ACS; and

⁵ Consumer Groups Comments at 3; Petition for Extension of Waiver of the Entertainment Software Association, CG Docket No. 10-213 (filed Oct. 18, 2016) (“2016 Waiver Petition”).

⁶ Consumer Groups Comments at 3.

⁷ 2016 Wavier Petition at 2-3 (quoting *Entertainment Software Association Petition for Class Waiver of Sections 716 and 717 of the Communications Act and Part 14 of the Commission’s Rules Requiring Access to Advanced Communications Services and Equipment by People with Disabilities*, Order, 30 FCC Rcd. 10,016 ¶ 16-17 (CGB 2015) (“2015 Waiver Order”).

(3) enabling the industry to continue to allocate resources to implementing accessibility solutions, including those that may grow out of outreach to and feedback from members of the disability community.⁸

While the Consumer Groups do not dispute that video game software meets the criteria for waiver eligibility,⁹ they nevertheless assert that the Petition is deficient under the CVAA and the Part 14 rules.¹⁰ ESA respectfully disagrees.

The Consumer Groups first object that the Petition does not “describe specific efforts undertaken to make specific games accessible that have failed as a result of as-yet-insurmountable technical challenges.”¹¹ However, an “insurmountable technical challenge” is not the standard for compliance under the CVAA, even for products for which the primary purpose is ACS, let alone for products that are eligible for waivers because they are designed primarily for other purposes.¹² Indeed, even products that are *per se* ineligible for a Part 14 waiver because their primary purpose is ACS must be made accessible only when accessibility is achievable, that is, if accessible solutions can be implemented “with reasonable effort or expense.”¹³

More importantly for these purposes, demonstrating an “insurmountable technical challenge” is not the standard for granting a waiver. On the contrary, when it adopted the Part 14 rules, the Commission specifically found “that the achievability factors are inappropriate to

⁸ 2016 Waiver Petition at 17-25.

⁹ See 47 C.F.R. § 14.5(b).

¹⁰ Consumer Groups Comments at 3.

¹¹ *Id.* at 2.

¹² See 47 U.S.C. § 617(h)(1), 47 C.F.R. § 14.10(b).

¹³ 47 C.F.R. § 14.10(b).

consider in the context of a waiver” request.¹⁴ The Commission instead determined that, consistent with the CVAA, Part 14 waiver analyses should focus on whether products that can access ACS are “designed primarily for purposes other than using ACS,” as well as the Commission’s general waiver criteria that there is good cause for granting the waiver and that doing so would serve the public interest.¹⁵ For example, as Congress and the Commission have recognized, waivers may be justified if doing so would “promote technological innovation”—apart from any determination of whether ACS accessibility is achievable.¹⁶ Indeed, the Bureau previously has specifically identified the “gaming industry’s interest in releasing innovative games and allowing video games that have ACS to compete with other video game products” as part of its public interest calculus.¹⁷

Just as it did last year, the video game industry has highlighted the differences between video game software for which the primary purpose is game playing, and other products for which the primary purpose is ACS. These differences demonstrate why it is in the public interest to grant a waiver that enables the video game industry to allocate resources to exploring gaming-specific accessibility solutions.¹⁸ But while this factor can and should be part of the Bureau’s public interest determination, the *ACS Report & Order* makes clear that waiver assessments are not assessments of achievability, let alone “insurmountability.”

¹⁴ *Implementation of Sections 716 and 717 of the Communications Act of 1934, as enacted by the Twenty-First Century Communications and Video Accessibility Act of 2010 et al.*, Report and Order and Further Notice of Proposed Rulemaking, 26 FCC Rcd. 14,557 ¶ 189 (2011) (“*ACS Report and Order*”).

¹⁵ *Id.* ¶¶ 182, 187.

¹⁶ *Id.* ¶ 181 (quoting H.R. REP. NO. 111-563, at 26 (2010); S. REP. NO. 111-386, at 8 (2010)).

¹⁷ *2015 Waiver Order* ¶ 18.

¹⁸ *See* 2016 Waiver Petition at 23-25.

The Consumer Groups also make the related claim that the Petition’s descriptions of accessibility progress and challenges are too general, arguing that the Part 14 waiver regime compels a more detailed “survey” of specific game titles and an analysis of challenges at the game title level.¹⁹ However, the Part 14 waiver rules contemplate that the Commission can analyze not only waiver requests for individual products, but also waivers for *classes of products* that share common characteristics.²⁰ ESA’s Petition requests the latter.

The Bureau previously has found that video game software shares sufficient common defining characteristics to be eligible for class waiver,²¹ and that ESA had “demonstrate[d] ... that eliminating accessibility barriers to the ACS features and functions in video game software remains challenging.”²² The materials submitted in support of ESA’s current waiver extension provide comparable levels of detail about these challenges for video game software.

For example, ESA’s current waiver describes the challenges of applying automated voice transcription to video game software due to factors that are common to games with online multi-party voice chat.²³ These include increased speech disfluency as a result of casual and/or emotional interactions,²⁴ use of vernacular and slang terms,²⁵ variations in acoustic quality of and distance from microphones,²⁶ difficulties in discerning speech when multiple talkers are

¹⁹ See Consumer Groups Comments at 2-3.

²⁰ 47 C.F.R. § 14.5(b).

²¹ 2015 Waiver Order ¶ 16.

²² *Id.* ¶ 20.

²³ See 2016 Waiver Petition at 19-21.

²⁴ *Id.* at 20 (citing Daniel Palacios-Alonso et al., *Spontaneous emotional speech recordings through a cooperative online video game*, CENTRO DE TECNOLOGÍA BIOMÉDICA (2015), http://ceur-ws.org/Vol-1394/paper_12.pdf).

²⁵ *Id.*

²⁶ *Id.* (citing Declaration of Mike Paciello ¶ 9(c), attached as Exhibit B to 2016 Waiver Petition).

present,²⁷ and complications due to transcription compute lag time.²⁸ ESA's Petition cited a video of a multiplayer game tournament featuring *Halo*, a science-fiction first person combat game, to illustrate the challenges that gaming environments present for automated speech transcription.²⁹ These challenges are not unique to *Halo*; they likewise apply to other chat-enabled multi-player games across a variety of genres and platforms. It is inaccurate to suggest that, to prove a class waiver is warranted, ESA's petition must review numerous video games in detail to demonstrate the problem. Nor should the Commission want it to do so.

Finally, the Consumer Groups object that the Petition does not provide "detailed milestones" to address technical challenges for ACS accessibility in games.³⁰ ESA does not fault the Consumer Groups for asking for such milestones and, to be candid, the industry would love to be able to provide them. Unfortunately, given the unique characteristics of video game software, it is impossible to predict at this level of granularity when—or in some cases whether—practical and achievable accessibility solutions will become available. For example, as the Petition describes, games implement game chat in a variety of manners across a number of platforms, thereby not readily lending to a single solution.³¹

ESA nevertheless understands the Consumer Groups' desire to see measurable indicia of progress in the coming year assuming the waiver is extended, and has given considerable thought

²⁷ *Id.* at 20-21 (citing IBM RESEARCH, *Multi-talker Speech Separation and Recognition*, http://researcher.watson.ibm.com/researcher/view_group.php?id=2819).

²⁸ *Id.* at 21 (citing Matthew W.G. Dye, et al., *Increasing Speed of Processing with Action Video Games* at 1, NIH, CURRENT DIRECTIONS IN PSYCHOLOGICAL SCIENCE (Dec. 2009), <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2871325/>). In addition, end to end internet service may introduce lag.

²⁹ *Id.* (citing Halo, *The Finals - Halo World Championship 2016*, YOUTUBE (Mar. 22, 2016) (footage conveys the speed at which games are played and gamers are talking), <https://www.youtube.com/watch?v=DuL9AossV6E> (view from the 42:36 mark to 44:22)).

³⁰ Consumer Groups Comments at 3.

³¹ *See* 2016 Waiver Petition at 21-22.

to how to accommodate this request. As noted in the Petition, Microsoft Research has been working for many years on speech-to-text functionality.³² Leveraging this developing technology, Microsoft Corporation has undertaken the significant challenge of developing platform-level speech-to-text, and text-to-speech, functionality for games that run on Xbox One or desktop Windows to utilize in their game chat. Microsoft will be providing an update to the Xbox software development kit for the Xbox One console to enable game developers to pilot real-time text transcription of audio game chat using speech-to-text translation, and to offer gamers the option of having text that they type read aloud as synthesized voice into audio game chat.³³ The updated Xbox development kit will provide a default user interface (UI) that games can implement to enable this chat feature, or game developers may choose to create their own custom UI. *Halo Wars 2*, an all new, real-time strategy game based on the popular Halo franchise, will pilot this functionality. Microsoft similarly intends to make these initial speech-to-text/text-to-speech platform components available in the Windows development kit for PC. Game developers will need time to evaluate the feature and decide if the solution will work for their games.

2. The Video Game Industry Intends to Continue its Outreach and Engagement Efforts, Including with the Deaf and Hard of Hearing Community.

The Consumer Groups have also requested additional information about the video game industry's plans for continued engagement with the deaf and hard of hearing community.³⁴ As set forth in ESA's Petition, the past year has seen a substantial increase in accessibility panels

³² See 2016 Waiver Petition at 19-20.

³³ As ESA has explained in its waiver petition, however, enabling effective speech-to-text in-game chat is challenging for a number of reasons. See 2016 Waiver Petition at 19-21. For example, conversational speech recognition is difficult even without taking "gamer speak," see *id.*, n.100, and the need to avoid compromising game performance into account. See also *supra* at 5-6.

³⁴ Consumer Groups Comments at 3.

and other outreach at industry events.³⁵ In fact, PlayStation Experience 2016—which took place earlier this month after the Consumer Groups filed their comments in this proceeding—recently featured its first panel dedicated to accessibility in video games.³⁶ In addition, the Disabled Accessibility for Gaming Entertainment Rating System (“DAGERS”) operated a booth at PlayStation Experience that simulated disabilities for participants playing the action adventure game *Uncharted 4*.³⁷

Looking forward, Microsoft is the Gold sponsor of the IGDA’s Game Accessibility Sig, #GAconf, on February 27, 2017.³⁸ This day-long event precedes the Game Developers Conference (“GDC”), the world’s largest and longest-running game industry professionals event, and focuses on advancing accessibility for gamers with disabilities, with leaders in the field of game accessibility. Microsoft will be speaking at #GAConf, and will also give a talk at GDC on the platform speech-to-text/text-to-speech feature and game accessibility development practices.

As the Consumer Groups have observed, moreover, “ESA and its members [have] dialogue[d] and work[ed] with the deaf and hard of hearing community,” and have also “gather[ed] feedback on their products and services from gamers who are deaf or hard of hearing.”³⁹ For example, through this dialog, some game companies are reaching out to the community to get input on game testing. ESA is also exploring opportunities for a “game jam”

³⁵ 2016 Waiver Petition at 11-12.

³⁶ See Elise Favis, *PlayStation Experience 2016 Sees Its First Accessibility in Video Games Panel*, GAME INFORMER (Dec. 2016), <http://www.gameinformer.com/b/news/archive/2016/12/03/playstation-experience-2016-sees-its-first-accessibility-in-video-games-panel.aspx>. Consistent with these efforts, the video game industry is happy to explore opportunities for the participation of panelists who are deaf or hard of hearing in future events.

³⁷ See *id.*

³⁸ ESA will also help co-sponsor this event.

³⁹ Consumer Groups Comments at 1.

focused on in-game communication and ways to make it more accessible, including for gamers who are deaf or hard of hearing.⁴⁰


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The video game industry, as it said it would, has made meaningful efforts to improve accessibility since the Bureau granted ESA's waiver extension for video game software last year. As set forth in ESA's current Petition, a 12-month waiver extension will enable the industry to continue to offer non-primary ACS functionality in video game software while it continues to focus on the best ways to explore features that can meet the unique challenges of advanced communications accessibility in video game environments. ESA respectfully requests that the Bureau grant its Petition without delay.

Respectfully submitted,

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⁴⁰ Game jams bring together a multitude of developers to tackle a specific challenge or series of challenges in connection with developing a prototype game.